OAC-5000 Wiring Diagram

2-Position OA Damper Conversion to Modulating Damper

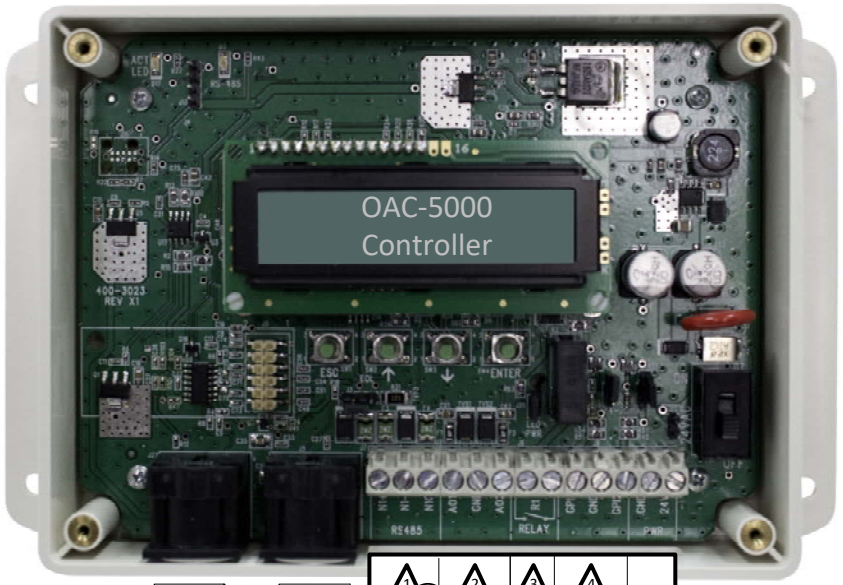
Optional DCV Configuration: Analog CO_2 Sensor

IAT THERMAL DISPERSION OUTDOOR AIRFLOW PROBE(S)

Probe #1 - 1 or 2 sensors
(required)

or

Probe #2 - 1 sensor
(optional if probe 1 is one sensor)



OAC-5000
2-Position OA Damper Conversion to Modulating Control

Replace the 2-position outdoor air actuator with a modulating, proportional, actuator (spring return, failsafe closed advised) of sufficient torque for the outdoor air damper provided.

Use the 24 VAC, 2-position, actuator signal as the binary trigger signal for active control.

PROPORTIONAL ACTUATOR
2-10 VDC
0-5/0-10 VDC
4-20 mA
(by others)

Feedback (+)
Control (+)
Common (-)
24 VAC POWER (Hot +)

P1
P2

FEP Plenum Rated Cable w/DIN Plug Included
10ft., 25ft. or 50 ft.

1 NET + (N1+)
NET – (N1-)
NETCOM (N1C)

2 AO1 + (AO1)
AO – (GND)
AO2 + (AO2)

3 RELAY R1
RELAY R1

4 GP1 + (GP1)
GP – (GND)
GP2 + (GP2)

COM - (GND)
HOT + (24 V)

Airflow Output 5

OPTIONAL ANALOG CO_2 SENSOR
AO+
AO -
L1 (+)
L2 (-)

2-Position OA Damper RTU Controller
R (+)
24 VAC
C (-)
2-POS ACT 24 VAC
2-POS ACT COM

1. RS-485 may be "daisy-chained" to a remote B.A.S. BACnet objects are read-write. OAC controllers are a ⅛ load BACnet Master device. Set termination jumper (J3) on the OAC controller if it is located at the end of the RS-485 line. OAC controller RS-485 connections are non-isolated. Install a GreenTrol network isolator if an isolated RS-485 connection is required.

2. Actuator and/or CO_2 sensor signal common are not required when a single transformer is provided to devices without isolated outputs.

3. N.O. contact closure relay. 30 VDC or 24 VAC @ 3A max. On-board jumper (J26) allows relay to drive an external LED (by others).

4. GP1 is configured as a binary 0/24 VAC input for this application. Occupied mode is triggered by the 24 VAC signal that would normally open the 2-position actuator.

5. Do not connect the secondary of the 24 VAC transformer to earth ground if the airflow output on AO2 is connected to a B.A.S. requiring a floating output signal.

OAC-5000_WiringDiagram_2PosConversion_AnalogDCV_r1a.vsd